

# PCT

## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference  
(if desired) (12 characters maximum)

P97-28

### Box No. I TITLE OF INVENTION

CLEANING GAS

### Box No. II APPLICANT

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (i.e. country) of residence if no State of residence is indicated below.)

Name : DAIKIN INDUSTRIES, LTD.

Address : Umeda Center Building, 4-12, Nakazaki-nishi  
2-chome, Kita-ku, Osaka-shi, Osaka 530,  
Japan

☐ This person is also inventor.

Telephone No.

Facsimile No.

Teleprinter No.

State (i.e. country) of nationality:

JAPAN

State (i.e. country) of residence:

JAPAN

This person is applicant  
for the purposes of:

☐ all designated  
States

☒ all designated States except  
the United States of America

☐ the United States  
of America only

☐ the States indicated in  
the Supplemental Box

### Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (i.e. country) of residence if no State of residence is indicated below.)

Name : ITANO Mitsushi

Address : c/o Yodogawa Seisakusho, DAIKIN INDUSTRIES,  
LTD., 1-1, Nishihitotsuya, Settsu-shi,  
Osaka 566, Japan

This person is:

☐ applicant only

☒ applicant and inventor

☐ inventor only (If this check-box  
is marked, do not fill in below.)

State (i.e. country) of nationality:

JAPAN

State (i.e. country) of residence:

JAPAN

This person is applicant  
for the purposes of:

☐ all designated  
States

☐ all designated States except  
the United States of America

☒ the United States  
of America only

☐ the States indicated in  
the Supplemental Box

☐ Further applicants and/or (further) inventors are indicated on a continuation sheet.

### Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf  
of the applicant(s) before the competent International Authorities as:

☒ agent

☐ common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

Name : SAEGUSA Eiji Resigtration Number : 6521

Address : Kitahama TNK Building, 1-7-1, Dosho-machi,  
Chuo-ku, Osaka-shi, OSAKA 541, JAPAN

Telephone No.

06-203-0941

Facsimile No.

06-222-1068

Teleprinter No.

☐ Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

**Box No.V DESIGNATION OF STATES**

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):

**Regional Patent**

- ☐ AP ARIPO Patent: GH Ghana, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SZ Swaziland, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT
- ☐ EA Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT
- ☒ EP European Patent: AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT
- ☐ OA OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)

**National Patent (if other kind of protection or treatment desired, specify on dotted line):**

- |   |   |
|---|---|
| <input type="checkbox"/> AL Albania                               | <input type="checkbox"/> LV Latvia                                    |
| <input type="checkbox"/> AM Armenia                               | <input type="checkbox"/> MD Republic of Moldova                       |
| <input type="checkbox"/> AT Austria                               | <input type="checkbox"/> MG Madagascar                                |
| <input type="checkbox"/> AU Australia                             | <input type="checkbox"/> MK The former Yugoslav Republic of Macedonia |
| <input type="checkbox"/> AZ Azerbaijan                            |   |
| <input type="checkbox"/> BA Bosnia and Herzegovina                | <input type="checkbox"/> MN Mongolia                                  |
| <input type="checkbox"/> BB Barbados                              | <input type="checkbox"/> MW Malawi                                    |
| <input type="checkbox"/> BG Bulgaria                              | <input type="checkbox"/> MX Mexico                                    |
| <input type="checkbox"/> BR Brazil                                | <input type="checkbox"/> NO Norway                                    |
| <input type="checkbox"/> BY Belarus                               | <input type="checkbox"/> NZ New Zealand                               |
| <input type="checkbox"/> CA Canada                                | <input type="checkbox"/> PL Poland                                    |
| <input type="checkbox"/> CH and LI Switzerland and Liechtenstein  | <input type="checkbox"/> PT Portugal                                  |
| <input checked="" type="checkbox"/> CN China                      | <input type="checkbox"/> RO Romania                                   |
| <input type="checkbox"/> CU Cuba                                  | <input type="checkbox"/> RU Russian Federation                        |
| <input type="checkbox"/> CZ Czech Republic                        | <input type="checkbox"/> SD Sudan                                     |
| <input type="checkbox"/> DE Germany                               | <input type="checkbox"/> SE Sweden                                    |
| <input type="checkbox"/> DK Denmark                               | <input type="checkbox"/> SG Singapore                                 |
| <input type="checkbox"/> EE Estonia                               | <input type="checkbox"/> SI Slovenia                                  |
| <input type="checkbox"/> ES Spain                                 | <input type="checkbox"/> SK Slovakia                                  |
| <input type="checkbox"/> FI Finland                               | <input type="checkbox"/> SL Sierra Leone                              |
| <input type="checkbox"/> GB United Kingdom                        | <input type="checkbox"/> TJ Tajikistan                                |
| <input type="checkbox"/> GE Georgia                               | <input type="checkbox"/> TM Turkmenistan                              |
| <input type="checkbox"/> GH Ghana                                 | <input type="checkbox"/> TR Turkey                                    |
| <input type="checkbox"/> HU Hungary                               | <input type="checkbox"/> TT Trinidad and Tobago                       |
| <input type="checkbox"/> IL Israel                                | <input type="checkbox"/> UA Ukraine                                   |
| <input type="checkbox"/> IS Iceland                               | <input type="checkbox"/> UG Uganda                                    |
| <input type="checkbox"/> JP Japan                                 | <input checked="" type="checkbox"/> US United States of America       |
| <input type="checkbox"/> KE Kenya                                 |   |
| <input type="checkbox"/> KG Kyrgyzstan                            | <input type="checkbox"/> UZ Uzbekistan                                |
| <input type="checkbox"/> KP Democratic People's Republic of Korea | <input type="checkbox"/> VN Viet Nam                                  |
|   | <input type="checkbox"/> YU Yugoslavia                                |
| <input checked="" type="checkbox"/> KR Republic of Korea          | <input type="checkbox"/> ZW Zimbabwe                                  |
| <input type="checkbox"/> KZ Kazakstan                             |   |
| <input type="checkbox"/> LC Saint Lucia                           |   |
| <input type="checkbox"/> LK Sri Lanka                             |   |
| <input type="checkbox"/> LR Liberia                               |   |
| <input type="checkbox"/> LS Lesotho                               |   |
| <input type="checkbox"/> LT Lithuania                             |   |
| <input type="checkbox"/> LU Luxembourg                            |   |

Check-boxes reserved for designating States (for the purposes of a national patent) which have become party to the PCT after issuance of this sheet:

In addition to the designations made above, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except the designation(s) of \_\_\_\_\_

The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation of a designation consists of the filing of a notice specifying that designation and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.)

**Supplemental Box**      *If the Supplemental Box is not used, this sheet need not be included in the request.*

**Use this box in the following cases:**

**1. If, in any of the Boxes, the space is insufficient to furnish all the information:**

*in particular:*

(i) *if more than two persons are involved as applicants and/or inventors and no "continuation sheet" is available:*

*in such case, write "Continuation of Box No. ..." [indicate the number of the Box] and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient;*

(ii) *if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked:*

*in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (i.e. country) of residence if no State of residence is indicated below;*

(iii) *if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America:*

*in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;*

(iv) *if, in addition to the agent(s) indicated in Box No. IV, there are further agents:*

*in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;*

(v) *if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition," or if, in Box No. V, the name of the United States of America is accompanied by an indication "Continuation" or "Continuation-in-part":*

*in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;*

(vi) *if there are more than three earlier applications whose priority is claimed:*

*in such case, write "Continuation of Box No. V" and the name of each State involved (or OAPI), and after the name of each such State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application;*

**2. If the applicant claims, in respect of any designated Office, the benefit of provisions of the national law concerning non-prejudicial disclosures or exceptions to lack of novelty:**

*in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI.*

*in such case, write "Statement Concerning Non-Prejudicial Disclosures or Exceptions to Lack of Novelty" and furnish that statement below.*

CONTINUATION OF BOX NO. IV

Name : KAKEHI Hiromichi

Registration Number : 7651

The same address as box IV

Name : OHARA Takeshi

Registration Number : 8642

The same address as box IV

<b>Box No. VI PRIORITY CLAIM</b>		Further priority claims are indicated in the Supplemental Box <input type="checkbox"/>	
The priority of the following earlier application(s) is hereby claimed:			
Country (in which, or for which, the application was filed)	Filing Date (day/month/year)	Application No.	Office of filing (only for regional or international application)
item (1) Japan	July 10, 1996 (10/07/1996)	Patent Application No. 180518/1996	
item (2)			
item (3)			
Mark the following check-box if the certified copy of the earlier application is to be issued by the Office which for the purposes of the present international application is the receiving Office (a fee may be required): <input type="checkbox"/> The receiving Office is hereby requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s) : _____			
<b>Box No. VII INTERNATIONAL SEARCHING AUTHORITY</b>			
Choice of International Searching Authority (ISA) (If two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used): <u>ISA / JP</u>			
Earlier search Fill in where a search (international, international-type or other) by the International Searching Authority has already been carried out or requested and the Authority is now requested to base the international search, to the extent possible, on the results of that earlier search. Identify such search or request either by reference to the relevant application (or the translation thereof) or by reference to the search request: Country (or regional Office): _____ Date (day/month/year): _____ Number: _____			
<b>Box No. VIII CHECK LIST</b>			
This international application contains the following number of sheets: 1. request : 4 sheets 2. description : 4 sheets 3. claims : 2 sheets 4. abstract : 1 sheets 5. drawings : 0 sheets Total : 11 sheets		This international application is accompanied by the item(s) marked below: 1. <input type="checkbox"/> separate signed power of attorney 2. <input type="checkbox"/> copy of general power of attorney 3. <input type="checkbox"/> statement explaining lack of signature 4. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s): 5. <input checked="" type="checkbox"/> fee calculation sheet 6. <input type="checkbox"/> separate indications concerning deposited microorganisms 7. <input type="checkbox"/> nucleotide and/or amino acid sequence listing (diskette) 8. <input type="checkbox"/> other (specify): _____	
Figure No. _____ of the drawings (if any) should accompany the abstract when it is published.			
<b>Box No. IX SIGNATURE OF APPLICANT OR AGENT</b>			
Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).			
Eiji SAEGUSA  seal	Hiromichi KAKEHI  seal	Takeshi OHARA  seal	

For receiving Office use only		2. Drawings:  <input type="checkbox"/> received:  <input type="checkbox"/> not received:
1. Date of actual receipt of the purported international application:		
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:		
4. Date of timely receipt of the required corrections under PCT Article 11(2):		
5. International Searching Authority specified by the applicant: <u>ISA / JP</u>	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid	

For International Bureau use only
Date of receipt of the record copy by the International Bureau: _____

09/214708

300 Res'd PCT/PTO 11 JAN 1999

VERIFICATION OF A TRANSLATION

I, the below named translator, hereby declare that:

My name and post office address are as stated below:

That I am knowledgeable in the English language and in the language in which the below identified international application was filed, and that I believe the English translation of the international application No. PCT/JP97/02369 is a true and complete translation of the above identified international application as filed.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such wilful false statements may jeopardize the validity of the application or any patent issued thereon.

Date

December 21, 1998

Full name of the translator Yumi KUIME

Signature of the translator

Yumi Kuime

Post Office Address Kitahama TNK Building, 7-1, Dosho-machi

1-chome, Chuo-ku, Osaka-shi, Osaka 541-

0045, Japan

E P

US

P C T

## 国際調査報告

(法 8 条、法施行規則第40、41条)  
〔P C T 1 8 条、P C T 規則43、44〕

出願人又は代理人 の書類記号 P 9 7 - 2 8	今後の手続きについては、国際調査報告の送付通知様式(P C T / I S A / 2 2 0 ) 及び下記5を参照すること。	
国際出願番号 P C T / J P 9 7 / 0 2 3 6 9	国際出願日 (日.月.年) 0 9 . 0 7 . 9 7	優先日 (日.月.年) 1 0 . 0 7 . 9 6
出願人 (氏名又は名称) ダイキン工業株式会社		

国際調査機関が作成したこの国際調査報告を法施行規則第41条 (P C T 1 8 条) の規定に従い出願人に送付する。  
この写しは国際事務局にも送付される。

この国際調査報告は、全部で 3 ページである。

☐ この調査報告に引用された先行技術文献の写しも添付されている。

1. ☐ 請求の範囲の一部の調査ができない (第 I 欄参照)。
2. ☐ 発明の単一性が欠如している (第 II 欄参照)。
3. ☐ この国際出願は、ヌクレオチド及び／又はアミノ酸配列リストを含んでおり、次の配列リストに基づき国際調査を行った。
  - ☐ この国際出願と共に提出されたもの
  - ☐ 出願人がこの国際出願とは別に提出したもの
    - ☐ しかし、出願時の国際出願の開示の範囲を越える事項を含まない旨を記載した書面が添付されていない
  - ☐ この国際調査機関が書換えたもの
4. 発明の名称は ☒ 出願人が提出したものを承認する。
  - ☐ 次に示すように国際調査機関が作成した。
5. 要約は ☒ 出願人が提出したものを承認する。
  - ☐ 第 III 欄に示されているように、法施行規則第47条 (P C T 規則38.2(b)) の規定により国際調査機関が作成した。出願人は、この国際調査報告の発送の日から 1 カ月以内にこの国際調査機関に意見を提出することができる。
6. 要約書とともに公表される図は、  
第 〇 図とする。 ☐ 出願人が示したとおりである。 ☒ なし
  - ☐ 出願人は図を示さなかった。
  - ☐ 本図は発明の特徴を一層よく表している。

## A. 発明の属する分野の分類 (国際特許分類 (IPC))

Int. Cl.<sup>6</sup> H01L21/3065, H01L21/304, 341, H01L21/205, H01L21/31, C23C16/44, C23C16/50, C07C19/08, C07C49/167, C07D303/08

## B. 調査を行った分野

## 調査を行った最小限資料 (国際特許分類 (IPC))

Int. Cl.<sup>6</sup> H01L21/3065, H01L21/304, 341, H01L21/205, H01L21/31, C23C16/44, C23C16/50, C07C19/08, C07C49/167, C07D303/08

## 最小限資料以外の資料で調査を行った分野に含まれるもの

日本国実用新案公報 1960-1994

日本国公開実用新案公報 1971-1994

## 国際調査で使用した電子データベース (データベースの名称、調査に使用した用語)

## C. 関連すると認められる文献

引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
※ PX	JP08-291299A (セントラル硝子株式会社), 5.11月.1996(05.11.96), 第1欄第18-19行, 第7, 8欄 (ファミリーなし)	1, 4-6, 9, 10
✕	JP60-77429A (旭硝子株式会社), 2.5月.1985(02.05.85), 第2頁右下欄第15行-第3頁左上欄第14行 & US4581101A & EP140201A	1-10
Y	JP55-149643A (ザ・パーキン・エルマー・コーポレーション), 21.11月.1980(21.11.80), 第1頁右下欄第1行 & US4260649A & GB2048786B	1, 4-6, 9, 10
✕	JP04-346428A (ソニー株式会社), 2.12月.1992(02.12.92), 第1頁右下欄 (ファミリーなし)	1, 2, 5-7, 10
✕ Y	JP06-163476A (ソニー株式会社), 10.6月.1994(10.06.96), 第2頁右欄第28-49行 (ファミリーなし)	1-10
✕ A	JP09-137274A (名古屋大学長), 27.5月.1997(27.05.97), 第8頁右欄第48行-第9頁左欄第10行 (ファミリーなし)	1-10

☒ C欄の続きにも文献が列挙されている。☐ パテントファミリーに関する別紙を参照。

## \* 引用文献のカテゴリー

「A」 特に関連のある文献ではなく、一般的技術水準を示すもの

「E」 先行文献ではあるが、国際出願日以後に公表されたもの

「L」 優先権主張に疑義を提起する文献又は他の文献の発行日若しくは他の特別な理由を確立するために引用する文献 (理由を付す)

「O」 口頭による開示、使用、展示等に言及する文献

「P」 国際出願日前で、かつ優先権の主張の基礎となる出願

の日の後に公表された文献

「T」 国際出願日又は優先日後に公表された文献であって出願と矛盾するものではなく、発明の原理又は理論の理解のために引用するもの

「X」 特に関連のある文献であって、当該文献のみで発明の新規性又は進歩性がないと考えられるもの

「Y」 特に関連のある文献であって、当該文献と他の1以上の文献との、当業者にとって自明である組合せによって進歩性がないと考えられるもの

「&amp;」 同一パテントファミリー文献

国際調査を完了した日

07.10.97

国際調査報告の発送日

21.10.97

国際調査機関の名称及びあて先

日本国特許庁 (ISA/J P)

郵便番号100

東京都千代田区霞が関三丁目4番3号

特許庁審査官 (権限のある職員)

高木 康晴



4M

9275

電話番号 03-3581-1101 内線 3462

C (続き) . 関連すると認められる文献		
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号
④ E A	JP09-129612A (東京エレクトロン株式会社) , 16. 5月. 1997 (16. 05. 97), 第2頁左欄 & EP776032A	1-10
⑤ A	JP09-36091A (株式会社東芝) , 7. 2月. 1997 (07. 02. 97), 第2頁左欄第2-28行 & & TW302509A	1-10
⑥ A	JP04-56770A (日立電子エンジニアリング株式会社) , 24. 2月. 1992 (24. 02. 92), 第1頁 左下欄 (ファミリーなし)	1-10
A	JP05-267256A (シーメンス アクチエンゲゼルシャフト) , 15. 10月. 1993 (15. 10. 93), & EP553469A3	1-10

5  
TT  
Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

09/214708 - 17 XA

1746

Applicant's or agent's file reference P97-28	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP97/02369	International filing date (day/month/year) 09 July 1997 (09.07.1997)	Priority date (day/month/year) 10 July 1996 (10.07.1996)
International Patent Classification (IPC) or national classification and IPC H01L 21/3065, H01L21/304, H01L21/205, H01L21/31, C23C 16/44, C23C16/50, C07C 19/08, C07C49/167, C07D 303/08		
Applicant DAIKIN INDUSTRIES, LTD.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>

Date of submission of the demand 08 December 1997 (08.12.1997)	Date of completion of this report 17 August 1998 (17.08.1998)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP97/02369

## I. Basis of the report

1. This report has been drawn on the basis of (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.):

☒ the international application as originally filed.

☐ the description, pages \_\_\_\_\_, as originally filed,  
 pages \_\_\_\_\_, filed with the demand,  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☐ the claims, Nos. \_\_\_\_\_, as originally filed,  
 Nos. \_\_\_\_\_, as amended under Article 19,  
 Nos. \_\_\_\_\_, filed with the demand,  
 Nos. \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
 Nos. \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

☐ the drawings, sheets/fig \_\_\_\_\_, as originally filed,  
 sheets/fig \_\_\_\_\_, filed with the demand,  
 sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
 sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

2. The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/fig \_\_\_\_\_

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP97/02369

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	2,7,8	YES
	Claims	1,3-6,9,10	NO
Inventive step (IS)	Claims		YES
	Claims	1-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

### 2. Citations and explanations

Claims 1, 4-6, 9 and 10

In document 1 [JP, 08-291299, A (Central Glass Co., Ltd.) 5 November 1996 (0.511.96)]  $\text{CF}_3\text{COCF}_3$  is listed as a cleaning gas, and therefore the subject matter of Claims 1, 4-6, 9, and 10 of the invention does not appear to be novel.

Claims 1, 3, and 5

In document 2 [JP, 60-77429, A (Asahi Glass Co., Ltd.) 2 May 1985 (02.05.85) line 8, lower right column, page 2 to line 14, upper left column, page 3]  $\text{CF}_3\text{CFCF}_2\text{O}$  is listed as a cleaning gas, and therefore the subject matter of Claims 1, 3, and 5 does not appear to be novel.

Claims 6, 8, and 10

With respect to the subject matter in Claims 6, 8, and 10 of the invention, the application of the  $\text{CF}_3\text{CFCF}_2\text{O}$  cleaning gas disclosed in document 2 above to the cleaning of plasma CVD chambers can easily be arrived at by persons skilled in the art.

Claims 1-10

In document 3 [JP, 55-149643, A (The Perkin-Elmer Corp.) 21 November 1980 (21.11.80), line 1, lower right column, page 1], document 4 [JP 04-346428, A (Sony Corp.) 2 December 1992 (02.12.92), lower left column, page 1] and document 5 [JP, 06-163476, A (Sony Corp.) 10 June 1994 (10.06.94) lines 28 to 49, right column, page 2]  $\text{CF}_3\text{COCF}_3$  and a linear unsaturated fluorocarbon  $\text{C}_3\text{F}_6$  are disclosed as etching gases, and the use of these gases as cleaning gases such as those described in document 2 can easily be arrived at by persons skilled in the art.

# PATENT COOPERATION TREATY

**PCT**

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark  
Office  
(Box PCT)  
Crystal Plaza 2  
Washington, DC 20231  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing:

15 January 1998 (15.01.98)

International application No.:

PCT/JP97/02369

Applicant's or agent's file reference:

P97-28

International filing date:

09 July 1997 (09.07.97)

Priority date:

10 July 1996 (10.07.96)

Applicant:

ITANO, Mitsushi

1. The designated Office is hereby notified of its election made:



in the demand filed with the International preliminary Examining Authority on:

08 December 1997 (08.12.97)



in a notice effecting later election filed with the International Bureau on:

2. The election



was



was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer:

J. Zahra

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